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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,088	01/11/2002	Makarand P. Gore	10012212-1	7567

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER	
KWOK, HELEN C	
ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,088

Applicant(s)

GORE ET AL.

Examiner

Helen C. Kwok

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Status Of Application

1. The finality of the rejection of the last Office action mailed November 12, 2003 has been withdrawn. A new final rejection is set forth below with respect to the Response filed January 12, 2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,506,513 (Yonetsu et al.) in view of either U.S. Patent 4,967,595 (Olson) or U.S. Patent 4,700,580 (Kamin).

With regards to claims 1-2, Yonetsu et al. discloses a liquid fuel housing tank for fuel cell comprising, as illustrated in Figures 1-18, an anode b; a cathode d; an anode reservoir 1 that contains a fuel solution of methanol in water and the anode; a float 26 for determining the level of the fuel solution. (See, column 4, line 33 to column 5, line 13; column 12, lines 13-63). The only difference between the prior art and the claimed invention is a float responsive to fuel solution density immersed in a volume of fuel solution that serves as a fuel concentration indicator. The references, Olson and

Kamin, disclose a fuel tester comprising, a volume of fuel solution having a floater responsive to the density of the fuel solution immersed in the volume of fuel solution. (See, Figures 1-3, column 3, line 35 to column 4, line 57 of Olson; Figures 1-2, column 1, line 64 to column 2, line 60 of Kamin). It would have been obvious to a person of ordinary skill in the art to employ a float as taught by either Olson or Kamin in lieu of the float of Yonetsu et al. to identify the position and level of the fuel solution in the fuel cell based on the density of the fuel solution and the type of fuel solution in the fuel cell. (See, column 2, lines 3-26 of Olson; column 1, lines 42-53 of Kamin).

With regards to claims 3-5, Yonetsu et al. further discloses a volume of fuel solution 7 is contained within a float chamber 5 in fluid contact with the anode reservoir 1 and separated from the anode reservoir by a semi-permeable filter membrane 8 or fuel channel 3. (See, column 4, line 50 to column 6, line 47, as observed in the Figures).

With regards to claims 6-9, Yonetsu et al. suggests a fuel scale aligned with a transparent window 25 and other ways of determining the liquid level of the fuel solution. Furthermore, Yonetsu et al. teaches the float 26 controls the release of the fuel solution when the float completes an electrical circuit (See, column 12, lines 9-63; Figures 17-18).

With regards to claims 10-15, the claims are directed to method claims and are commensurate in scope with claims 1-9 and are rejected for the same reasons as set forth above.

Response to Amendment

4. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

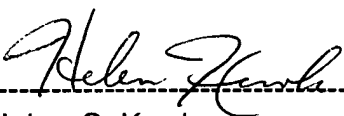
The reference cited is related to a device to make the concentration of electrolyte uniform in a liquid fuel cell.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen C. Kwok
Art Unit 2856

hck
March 19, 2004